

## **REMARKS**

**[0003]** Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-13, 15-19, 21-43, and 45-52 are presently pending. Claims amended herein are: 1, 2, 4, 8, 12, 13, 19, 24, 41, and 45. Claims cancelled herein are: 14, 20, and 44. New claims 52-54 are added herein.

### **Statement of Substance of Interview**

**[0004]** Examiner Haupt and Primary Examiner Fureman graciously met with me—the undersigned representative for the Applicant—on April 29, 2008. Applicant greatly appreciates the Examiners’ willingness to meet. Such willingness is invaluable to each of us in our common goal of an expedited prosecution of this patent application.

**[0005]** During the in person interview, we discussed how the claims differed from the cited art, namely Kaish. Without conceding the propriety of the rejections and in the interest of expediting prosecution, I also proposed several possible clarifying amendments.

**[0006]** The Examiners were receptive to the proposals, and I understood the Examiner to tentatively concur with discussed clarifying amendments, subject to an updated search. For example, I understood the Examiner to concur with a clarification to claim 8 regarding “dimension”. However, the Examiners indicated that the cited art would need to be reviewed and an updated search performed upon receipt of the formal response, herein.

**[0007]** Applicant herein amends the claims consistent with the discussion during the interview. Accordingly, Applicant submits that the pending claims are allowable over the cited reference of record for at least the reasons discussed during the interview.

### **Formal Request for an Interview**

**[0008]** If the Examiner's reply to this communication is anything other than allowance of all pending claims, then I formally request an interview with the Examiner. I encourage the Examiner to call me—the undersigned representative for the Applicant—so that we can talk about this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

**[0009]** Please contact me to schedule a date and time for an interview that is most convenient for both of us. While email works great for me, I welcome your call as well. My contact information may be found on the last page of this response.

### **Claim Amendments and Additions**

**[0010]** Without conceding the propriety of the rejections herein and in the interest of expediting prosecution, Applicant amends claims 1, 2, 4, 8, 12, 13, 19, 24, 41, and 45 herein. Applicant amends claims to clarify claimed features. Such amendments are made to expedite prosecution and more quickly identify allowable subject matter. Such amendments are merely intended to clarify the claimed features, and should not be construed as further limiting the claimed invention in response to the cited references.

**[0011]** Claims 1, 19, and 41 are only amended to include the subject matter of former dependent claims 2, 20, and 44, respectively.

**[0012]** Support for the amendment to claim 2 can be found at least at page 9 of the specification.

**[0013]** Support for the amendment to claim 4 can be found at least at page 10 of the specification.

**[0014]** Support for the amendment to claim 8 can be found at least at page 24 of the specification.

**[0015]** Support for the amendment to claim 12 can be found at least at pages 7-9 of the specification.

**[0016]** Support for the amendment to claim 13 can be found at least at pages 12-13 of the specification.

**[0017]** Furthermore, Applicant adds new claims 52-54 herein. These new claims are fully supported by Application and therefore do not constitute new matter. For example, support can be found at least at pages 7, 9 and 25-29 of the specification.

## **Substantive Matters**

### **Claim Rejections under § 102**

**[0018]** Claims 1-51 are rejected under 35 U.S.C. §102. For the reasons set forth below, the Examiner has not shown that cited reference anticipates the rejected claims. Accordingly, Applicant respectfully requests that the §102 rejections be withdrawn and the case be passed along to issuance.

**[0019]** The Examiner's rejections are based upon **Kaish: *Kaish, et al.***, US Patent No. 5,974,150 (issued October 26, 1999).

### **Overview of the Application**

**[0020]** The Application describes utilization of randomly-occurring features of optical fiber strands in/on a label to provide counterfeit-resistant and/or tamper-resistant labels. More specifically, labels including randomly-occurring features are scanned to determine the labels' features. The information from the scan is utilized to provide identifying indicia which uniquely identifies each label and may be later verified against the label features that are present to determine whether the label is genuine.

### **Cited Reference - Kaish**

**[0021]** Kaish describes authentication of goods using dichroic fibers.

## **Anticipation Rejections**

**[0022]** Applicant submits that the anticipation rejections are not valid because, for each rejected claim, no single reference discloses each and every element of that rejected claim.<sup>1</sup> Furthermore, the elements disclosed in the single reference are not arranged in the manner recited by each rejected claim.<sup>2</sup>

### **Based upon Kaish**

**[0023]** The Examiner rejects claims 1-51 under 35 U.S.C. § 102(b) as being anticipated by Kaish. Applicant respectfully traverses the rejections of these claims. Based on the reasons given below, Applicant asks the Examiner to withdraw the rejection of these claims.

### **Independent Claim 1**

**[0024]** The Examiner indicates (Action, p. 2) the following with regard to this claim. Furthermore, the Examiner indicates (Action, p. 3) the following with regard to claim 2, the subject matter of which is herein incorporated in claim 1.

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<sup>1</sup> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); also see MPEP §2131.

<sup>2</sup> See *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Kaish teaches:

With respect to claim 1:

- Encoding a plurality of features of a label with a private key to provide a medium certificate (Column 22, Lines 27-46)
- Decoding the medium certificate with a public key (Column 23, Lines 4-19)
- Verifying the decoded medium certificate against the plurality of label features to determine whether the label is genuine (Column 23, Lines 15-18)

With respect to claim 2 and incorporating all limitations of claim 1:

- Wherein the plurality of label features comprise coordinates of a plurality of optical fiber strands present on the label (Abstract and Column 22, Lines 38-64)

**[0025]** Applicant submits that Kaish does not anticipate this claim at least because it does not show or disclose the following elements as recited in this claim (as amended to include the subject matter of former claim 2, with emphasis added):

- encoding a plurality of features of a label with a private key to provide a medium certificate, wherein **the plurality of features comprise coordinates of a plurality of optical fiber strands present on the label**

**[0026]** In this Action, the Examiner equates the use of particular characteristics of dichroic fibers disclosed by Kaish with the “encoding a plurality of features of a label with a private key to provide a medium certificate, wherein **the plurality of features**

**comprise coordinates of a plurality of optical fiber strands present on the label”** recited in this claim. Applicant respectfully disagrees.

**[0027]** Kaish uses dichroic fibers for authentication. Kaish does not “encod[e] a plurality of features of a label with a private key to provide a medium certificate, wherein the plurality of features comprise coordinates of a plurality of optical fiber strands present on the label,” as claimed. Consequently, Kaish does not disclose all of the claimed elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

*Independent Claims 19 and 41*

**[0028]** Independent claims 19 and 41 include at least one feature similar to the claimed features discussed above regarding claim 1. Thus, independent claims 19 and 41 are allowable over the cited reference for at least similar reasons as discussed above regarding claim 1. Accordingly, Applicant asks the Examiner to withdraw the rejections of these claims.

*Dependent Claims 2-18, 21-40, 42, 43, and 45-54*

**[0029]** These claims ultimately depend upon independent claims 1, 19, and 41. As discussed above, claims 1, 19, and 41 are allowable over the cited reference. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

**[0030]** For example, regarding claim 7, the Examiner indicates (Action, p. 4) the following:

With respect to claim 7 and incorporating all limitations of claim 1:

- Obtaining at least two shots of the label (Column 14, Lines 9-20, Column 23, Lines 27-42 and Column 28, Lines 7-30)
- Extracting data from the label shots (Column 14, Lines 9-20, Column 23, Lines 27-42 and Column 28, Lines 7-30)
- Determining a motion transformation function of the extracted data (Column 14, Lines 9-20, Column 23, Lines 27-42 and Column 28, Lines 7-30)
- Forming a multi-dimensional map of the plurality of label features (Column 14, Lines 9-20, Column 23, Lines 27-42 and Column 28, Lines 7-30)

**[0031]** Applicant submits that Kaish does not anticipate this claim at least because it does not show or disclose the following elements as recited in this claim (with emphasis added):

- A method as recited by claim 1, wherein the verifying comprises:
  - **obtaining at least two shots of the label;**
  - extracting data from the label shots;
  - **determining a motion transformation function of the extracted data;** and
  - forming a multi-dimensional map of the plurality of label features



**[0032]** In this Action, the Examiner relies upon Kaish's *data map of the position and polarization axis orientation of microspheres having dichroic properties*; Kaish's *two charge-coupled device (CCD) imagers*; and Kaish's *two-dimensional or higher vector, which represents an irreversible compression of data derived from a region to anticipate each element of this claim*. Applicant respectfully disagrees.

**[0033]** Kaish does not disclose each element recited above. For example Kaish does not show "determining a motion transformation function of the extracted data" or even mention a motion transformation function. Consequently, Kaish does not disclose all of the claimed elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

**[0034]** Regarding claims 8 and 9, the Examiner indicates (Action, p. 4) the following:

With respect to claim 8 and incorporating all limitations of claim 7:

- Wherein the multi-dimensional map of the plurality of label features has a dimension selected from a group comprising about two, three and four (Column 14, Lines 9-20)

With respect to claim 9 and incorporating all limitations of claim 7:

- Wherein the extracted data comprises data selected from a group comprising guide pattern coordinates and lit fiber end coordinates (Column 14, Lines 9-20)

**[0035]** Applicant submits that Kaish does not anticipate these claims at least because it does not show or disclose the following elements as recited in these claims (claim 8 as amended, and with emphasis added):

- Claim 8: A method as recited by claim 7, wherein the multi-dimensional map of the plurality of label features **is formed as a function of the coordinates of each end of at least one of the plurality of optical fiber strands** and has a dimension selected from a group comprising about two, three, and four wherein the **dimension comprises a number determined based on a number of coordinate values mapped via a capture function**
- Claim 9: A method as recited by claim 7, wherein the extracted data comprises data selected from a **group comprising guide pattern coordinates and lit fiber end coordinates**

**[0036]** In this Action, the Examiner relies upon the following paragraph of Kaish to anticipate each element of this claim. Applicant respectfully disagrees.

10 In another embodiment of the invention, microspheres are provided having dichroic properties. In this case, the data map includes the position and polarization axis orientation of the microspheres, which it should be understood is a three dimensional vector in the case of a linear fluorescent emission axis from a dye and a two dimensional vector in the case  
15 of a radially symmetric fluorescent emission from a dye. Advantageously, these microspheres may be applied to an object using a printing process, for example lithography, ink jet printing, specialized laser printing (with care taken to avoid undesired changes to the dichroism in the fuser), and  
20 the like.

**[0037]** Kaish does not disclose each of the elements of these claims as recited above. For example Kaish does not show at least “wherein the multi-dimensional map of the plurality of label features **is formed as a function of the coordinates of each end of at least one of the plurality of optical fiber strands,**” “wherein the **dimension comprises a number determined based on a number of coordinate values mapped via a capture function,**” or “a **group comprising guide pattern coordinates and lit fiber end coordinates.**” Consequently, Kaish does not disclose all of the claimed elements and features of these claims. Accordingly, Applicant asks the Examiner to withdraw the rejections of these claims.

### **Dependent Claims**


**[0038]** In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant requests that the Examiner withdraw the rejection of each dependent claim where its base claim is allowable.

**Conclusion**

**[0039]** All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the **Examiner is urged to contact me before issuing a subsequent Action.** Please call/email me or my assistant at your convenience.

Respectfully Submitted,

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Dated: 5/8/2008

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